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10/596,266

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Hans Peter Weitzel

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EXAMINER

KOLLIAS, ALEXANDER C

ART UNIT

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1725

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,266	Applicant(s) WEITZEL ET AL.	
	Examiner ALEXANDER C. KOLLIAS	Art Unit 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. All outstanding objections and rejections, except for those maintained below, are withdrawn in light of applicant's amendment filed on 10/7/2010.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 10/7/2010. In particular, original Claims 49 and 47 have been amended to recite new limitations not previously presented. Specifically, these claims have been amended narrowing the scope of transitional language from "comprising of" to "consisting of", i.e. "a redispersible powder composition consisting of". Thus, the following action is properly made final.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claim 43 is rejected under 35 U.S.C. 102(b) as being anticipated by Weitzel et al (2003/0018121).

Regarding claim 43, Weitzel discloses a process wherein the additives, including binders such as carbonates, lime gypsum and fungicides are mixed with a re-dispersible polymer powder in dry form (Page 4 [0032] -[0038]). The water redispersible polymer is obtained by spray

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drying (Page 3 [0023]). it is noted that in the process disclosed by the reference, the addition and mixing of the fungicide and redispersible polymer meets the limitations of admixing a polymer powder composition with a solid biologically active additives recited in the present claims.

In light of the above, it is clear that Weitzel et al anticipates the presently recited claims.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weitzel et al (2003/0018121) in view of Botts et al (US 7,070,795).

The discussion with respect to Weitzel et al as set forth in Paragraph 5 above is incorporated here by reference.

Regarding claim 44, Weitzel teaches all the claim limitations as set forth above. The reference teaches all the claim limitations as set forth above. However, Weitzel et al does not disclose a process wherein water re-dispersible polymer powder composition is prepared by spray drying an aqueous polymer dispersion together with a biocide.

Botts et al discloses active ingredients such as fungicides or insecticides which are entrapped in a polymeric matrix to form particles. The particles when applied release active ingredients at a rate to provide effective amounts of the active ingredients over a period of time

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(Abstract, Column 7, Lines 36-60, Column 8, Lines 16-27, Column 12, Lines 30-55, Column 15, Lines 28-64). The reference discloses method of producing the matrix particles that comprise such as spray drying so that the active ingredient is distributed uniformly throughout the polymer matrix (Page 18, Lines 5-12).

Given that Weitzel et al discloses a composition comprising water re-dispersible polymers and biocidal compounds and processes to spraying drying the re-dispersible polymer, in light of the particular advantages provided by the use and control of the spraying drying a polymer matrix with active ingredients as taught by Botts et al, it would therefore have been obvious to one of ordinary skill in the art to include such sprayed dried polymer and method of production in the composition and methods disclosed by Weitzel et al in order to obtain polymer particles which have active compounds distributed uniformly throughout.

Regarding claims 45-46, the combined disclosure of Weitzel and Botts disclose all the claim limitations as set forth above. As discussed above, Weitzel discloses a process of mixing biocides with a curable construction products, additionally, it is noted that the reference discloses biocides such as isothiazolinones, i.e. N-octylisothiazoline, dichloro-N-octylisothiazolinone, etc and benzimidazoles such as 2-(methoxycarbonylamino)-benzimidazole (Page 3 [0028]).

8. Claims 49, 34-42, 47-48, and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerin et al (US 6,369,153) in view of Weitzel et al (2003/0018121).

Regarding claim 49, Guerin et al discloses a curable mineral construction product, (plaster, mortars, etc) comprising a water-redispersible polymer powder composition (Column 1,

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Lines 63-67, Column 8 Lines 64-67, Column 9 Lines 1-4). The water redispersible polymer composition consists of biocides and two emulsifiers, i.e. surfactants (disclosed a main surfactant and a water soluble compound which as be a surfactant as well, Abstract, Column 6, lines 57-658 and Column 9, Lines 5-12)

The reference discloses all the claim limitations as set forth above. While the reference discloses the use of biocides in the redispersible polymer composition, the reference does not disclose that the biocide is a fungicide present in the amount from 0.001 to 0.5 wt %, based on the amount of polymer in the composition.

Weitzel et al discloses a compositions comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], Page 1 [0009]). Fungicides comprise 0.001 to 0.2 wt % of the composition. Based on the discloses amount of pigment (1 to 30 wt % - Page 3 [0029]), filler (5 to 80 wt % Page 3 [0030]), and fungicide, it is determined that redispersible polymer powder comprising 18.99 to 64.8 wt % of the composition. Hence, it is determined that fungicide is 0.005 to 0.3 wt % based on the mount of polymer.

Regarding the amount of fungicide disclosed by Weitzel, it is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

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Regarding claim 34, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. Additionally, Guerin et al discloses that the water-redispersible polymer powder is prepared by spray drying (Column 8 Lines 27-33). Further, the reference discloses that in the process of preparing the water-redispersible polymer during emulsion polymerization, standard additives can be added (Column 8, Lines 10-11). Given that the reference discloses the use of additives such as biocides, it is clear that the biocide may be added during emulsion polymerization following by spray drying the combination of biocides and polymer together as presently claimed.

Regarding claim 35, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. Additionally, Guerin et al discloses that the water-redispersible polymer powder is prepared by spray drying (Column 8 Lines 27-33). Given that the reference discloses the use of additives such as biocides, it is clear that the biocide may be added through admixing to the spray dried polymer as presently claimed.

Regarding claim 36, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. Additionally, Guerin et al discloses that the polymer composition is added to mixtures of inorganic hydraulic binder and cements (Column 8, Lines 64-67 and Column 9 Lines 1-4). Given the disclosure of inorganic hydraulic binder and adhesive cements, it is clear that the curable mineral construction product disclosed by the reference comprises a hydraulically settable mineral binder as presently claimed.

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Regarding claim 37, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. Additionally, Guerin et al discloses that the polymer composition is added to mixtures of inorganic hydraulic binder (Column 8, Lines 64-67). Given the disclosure of inorganic hydraulic binder and adhesive cements, it is clear that the curable mineral construction product is cement-free as presently claimed.

Regarding claim 38, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, while Guerin et al discloses the use of biocides, the reference does not disclose that the biocide consists of isothiazolinone or a benzimidazole.

Weitzel et al discloses a composition comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], Page 1 [0009]). Fungicides consist of compounds such as isothiazolinones, and benzimidazoles which are added to the composition to counter infestation of bacteria yeasts and fungi (Page 3 [0028])

Given that both Guerin et al and Weitzel are drawn to compositions containing redispersible polymers and biocidal active compounds, and, given that Guerin et al does not explicitly prohibit other ingredients, in light of the particular advantages provided by the use and control of the isothiazolinones, and benzimidazoles as taught by Weitzel, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the composition disclosed by Guerin et al with a reasonable expectation of success.

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Regarding claim 39, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, while Guerin et al discloses the use of biocides, the reference does not disclose that the biocide consists of isothiazolinone or a benzimidazole.

Weitzel et al discloses a composition comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], Page 1 [0009]). Fungicides consist of compounds such as N-octylisothiazolinone and methylisothiazolinone which are added to the composition to counter infestation of bacteria yeasts and fungi (Page 3 [0028])

Given that both Guerin et al and Weitzel are drawn to compositions containing redispersible polymers and biocidal active compounds, and, given that Guerin et al does not explicitly prohibit other ingredients, in light of the particular advantages provided by the use and control of the N-octylisothiazolinone and methylisothiazolinone as taught by Weitzel, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the composition disclosed by Guerin et al with a reasonable expectation of success.

Regarding claim 40, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, while Guerin et al discloses the use of biocides, the reference does not disclose that the biocide consists of isothiazolinone or a benzimidazole.

Weitzel et al discloses a composition comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], Page 1 [0009]). Fungicides consist of

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compounds such as N-octylisothiazolinone and methylisothiazolinone which are added to the composition to counter infestation of bacteria yeasts and fungi (Page 3 [0028])

Given that both Guerin et al and Weitzel are drawn to compositions containing redispersible polymers and biocidal active compounds, and, given that Guerin et al does not explicitly prohibit other ingredients, in light of the particular advantages provided by the use and control of the N-octylisothiazolinone and methylisothiazolinone as taught by Weitzel, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the composition disclosed by Guerin et al with a reasonable expectation of success.

Regarding claim 41, the combined discloses of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, Guerin et al discloses a water-redispersible polymer. Additionally, the reference discloses that the polymer is film-forming polymer and comprises monomers such as vinyl esters, methacrylic esters, i.e., methacrylates, vinyl aromatic monomers (Column 2, Lines 56-65).

Regarding claim 42, the combined discloses of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, Guerin et al discloses a water-redispersible polymer. Additionally, the reference discloses that the polymer is film-forming polymer and comprises monomers such as vinyl aromatic monomers and acrylates such as methyl, ethyl, n-butyl acrylates (Column 2, Lines 56-65 and Column 3 Lines 1-5)

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Regarding claim 47, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, Guerin et al discloses a water-redispersible polymer composition utilized in a mineral building material. Additionally, the reference discloses a process of preparing such a composition, i.e. Mixing the re-dispersible polymer composition with inorganic hydraulic binder, or cements, and water (Column 8, Lines 64-67 and Column 9, Lines 1-5 and Example 1 Lines 20-50). Further, the reference discloses that in the process of preparing the water-redispersible polymer during emulsion polymerization, standard additives can be added (Column 8, Lines 10-11). Given that the reference discloses the use of additives such as biocides, it is clear that the redispersible polymer is a composition containing a biocidal additive.

The reference discloses all the claim limitations as set forth above. While the reference discloses the use of biocides in the redispersible polymer composition, the reference does not disclose that the biocide is a fungicide present in the amount from 0.001 to 0.5 wt %, based on the amount of polymer in the composition.

Weitzel et al discloses a composition comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], Page 1 [0009]). Fungicides comprise 0.001 to 0.2 wt % of the composition. Based on the disclosed amount of pigment (1 to 30 wt % - Page 3 [0029]), filler (5 to 80 wt % Page 3 [0030]), and fungicide, it is determined that redispersible polymer powder comprising 18.99 to 64.8 wt % of the composition. Hence, it is determined that fungicide is 0.005 to 0.3 wt % based on the amount of polymer.

Regarding the amount of fungicide disclosed by Weitzel, it is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations

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within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir. 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

Regarding claim 48, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. Additionally, Guerin et al discloses that the water-redispersible polymer powder is prepared by spray drying (Column 8 Lines 27-33). Further, the reference discloses that in the process of preparing the water-redispersible polymer during emulsion polymerization, standard additives can be added (Column 8, Lines 10-11). Given that the reference discloses the use of additives such as biocides, it is clear that the biocide may be added during emulsion polymerization following by spray drying the combination of biocides and polymer together as presently claimed.

Weitzel et al discloses a process and a composition comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], and Page 1 [0009]). Fungicides consist of compounds such as N-octylisothiazolinone and methylisothiazolinone which are added to the composition to counter infestation of bacteria yeasts and fungi (Page 3 [0028])

Given that both Guerin et al and Weitzel are drawn to process of forming compositions which contain redispersible polymers and biocidal active compounds, and, given that Guerin et al does not explicitly prohibit other ingredients, in light of the particular advantages provided by

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the use and control of the N-octylisothiazolinone and methylisothiazolinone as taught by Weitzel, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the process disclosed by Guerin et al with a reasonable expectation of success.

Regarding claim 50, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, Guerin et al discloses a water-redispersible polymer formed by polymerizing monomers (Column 2 Lines 56-65 and Column 3 Lines 23-27). Additionally, the reference discloses that the polymer is film-forming copolymer and comprises monomers such as vinyl acetate, vinyl versatate, and ethylene (Column 3 Lines 5-19).

While Guerin et al discloses the use of biocides, the reference does not disclose that the biocide consists of N-octylisothiazolinone.

Weitzel et al discloses a composition comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], Page 1 [0009]). Fungicides consist of compounds such as N-octylisothiazolinone which is added to the composition to counter infestation of bacteria yeasts and fungi (Page 3 [0028])

Given that both Guerin et al and Weitzel are drawn to compositions containing redispersible polymers and biocidal active compounds, and, given that Guerin et al does not explicitly prohibit other ingredients, in light of the particular advantages provided by the use and control of the N-octylisothiazolinone as taught by Weitzel, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the composition disclosed by Guerin et al with a reasonable expectation of success.

Regarding claim 51, the combined disclosures of Guerin et al and Weitzel teach all the claim limitations as set forth above. As discussed above, Guerin et al discloses a water-redispersible polymer formed by polymerizing monomers (Column 2 Lines 56-65 and Column 3 Lines 23-27). Additionally, the reference discloses that the polymer is film-forming copolymer and comprises monomers such as vinyl acetate, vinyl versatate, and ethylene (Column 3 Lines 5-19).

While Guerin et al discloses the use of biocides, the reference does not disclose that the biocide consists of N-octylisothiazolinone.

Weitzel et al discloses a composition comprising a water-redispersible polymer powder and biocides, i.e., fungicides (Abstract, Page 43 [0028], Page 1 [0009]). Fungicides consist of compounds such as N-octylisothiazolinone which is added to the composition to counter infestation of bacteria yeasts and fungi (Page 3 [0028]).

Given that both Guerin et al and Weitzel are drawn to compositions containing redispersible polymers and biocidal active compounds, and, given that Guerin et al does not explicitly prohibit other ingredients, in light of the particular advantages provided by the use and control of the N-octylisothiazolinone as taught by Weitzel, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the composition disclosed by Guerin et al with a reasonable expectation of success.

Response to Arguments

9. Applicant's arguments filed 10/7/2010 have been fully considered but they are not persuasive.

10. In light of Applicants' amendments to the claims, the double patenting rejection set forth in Paragraphs 9-12 of the previous Office Action are hereby withdrawn.

11. Applicant's arguments regarding unexpected results regarding the biocidal activity of the present invention, i.e., a biocide incorporated into the dry water re-dispersible polymer added to compositions as compared to adding the biocide and water re-dispersible polymer separately to compositions are not found to be persuasive for the following reasons. Inventive Examples 1 and 2 comprise 22.5 and 10.5 ppm of N-octylisothiazolinone while Comparative Example 4 comprises a larger concentration (225 ppm) of the same biocidal ingredient, it is noted that the comparison of Inventive Examples 1 and 2 to Comparative Example 4 is not a proper side-by-side comparison, i.e., the amount of biocide in both the comparative and inventive examples (either 1 or 3) would have to be identical. Additionally, it is noted that Comparative Example 4 discloses that after 9 and 12 months respectively a "small amounts of growth" was observed (as designated by the "+" symbol) while Inventive Examples 1 and 2 displayed no growth (as designated by the "0" symbol). While the Applicant's definition of "zero growth" is clear, the definition of a "small amount of growth", are not, i.e. how much does "small growth" differ from no growth.

The present claims disclose that the composition comprises a generic re-dispersible polymer and a biocide. However, the Examples comprise a specific biocide and polymer, namely N-octylisothiazolinone and a copolymer of vinyl acetate and ethylene. As such the inventive Examples are not commensurate with the scope of the present claims. Furthermore, it is noted that the present claims recite that the biocide comprises 0.001 to 0.1 % of the polymer, while the inventive examples comprise 0.00105 to 0.00225 % of a biocide. As set forth in MPEP 716.02(d), whether unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, “objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support”. In other words, the showing of unexpected results must be reviewed to see if the results occurred over the entire claimed range, *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). Applicants have not provided data to show that the unexpected results do in fact occur over the entire claimed range of biocide.

Further regarding and the rejection of claim 43 under 35 U.S.C. 102 (b) as cited in MPEP 706.02(b), it is noted that a rejection based on 35 USC 102(b), can only be overcome by (a) persuasively arguing that the claims are patentably distinguishable from the prior art, (b) amending the claims to patentably distinguish over the prior art, or (c) perfecting priority under 35 USC 119(e) or 120. As can be seen, comparative data is not sufficient to overcome an anticipatory rejection under 102(b).

12. Applicants argue that as amended claim 49 requires a biocide which is an “active” compound and thus is different from the complexed biocidal compounds disclosed by Weitzel.

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Further, Applicant argues that the term “active” is a term of art which means the bactericide, fungicide or algacide itself, i.e. neat with no further additives. As evidence of their position Applicants have filed a Declaration under 37 C.F.R. 1.132 on 9/9/2009. However, it is significant to note the following regarding the term “active”:

The present disclosure, as originally filed, on Page 2 Lines 32-34 discloses that the composition comprises biocidal compounds, i.e. biocides, or biological active additives are bactericides, fungicides and algacides. Other than this disclosure in present Specification, there is no specific disclosure that Applicant’s definition of a biologically active compound is a pure or unmodified compound.

The present disclosure, as originally filed, on Page 2 Lines 32-34 discloses that the composition comprises biocidal compounds, i.e. biocides, or biological active additives are bactericides, fungicides and algacides. Other than this disclosure in present Specification, there is no specific disclosure that Applicant’s definition of a biologically active compound is a pure or unmodified compound. Furthermore, it is noted that even though the claims have been amended to recite that the redispersible polymer composition “consists of” a fungicide and a redispersible polymer, there is nothing within the scope of the present claims that excludes the use of biocidal derivatives such as the complexed derivatives disclosed in Weitzel et al. That is the derivatives disclosed in the reference are in biocides.

13. Applicants argue that the claim language requires the biocidal additive to be selected from “active” ingredients which is a term of art referring to the biocidal compound itself, i.e. neat. Further Applicants argue that the complexed biocide disclosed in Weitzel et al is akin to a

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compositions containing 50 % filler and 50 % biocide. However, it is noted that this example is not analogous to the disclosed biocides in Weitzel et al given that (a) the filler/biocide example, is not a complex i.e. derivative as taught by Weitzel et al but rather two separate entities, whereas the biocidal compounds disclosed by Weitzel et al are a single, chemical entity as evidenced by the use of the term in the chemical arts, i.e. complex.

Further, it is noted, Applicants point to the results in Weitzel et al (Table 2) as evidence of their position regarding the fact that the biocidal compounds disclosed by Weitzel et al do not encompass those presently claimed. Applicants' position regarding the data presented in Table 2 of the reference is not understood given that appears these arguments are drawn to the biocidal activity of the comparative and inventive examples in the reference. However, it is significant to note that the inventive and comparative examples in Weitzel et al are drawn to a soiling index, i.e. dirt pickup after a period of weathering, and these examples do not disclose any results drawn to biocidal activity of the coating composition, i.e. microbial colony growth, etc.

14. Applicants argue that the complex itself is not a active and that the present claim language, i.e. "consists of", is a closed phrase which prohibits the inclusion of other substances. However, firstly it is noted that the term "complex" as utilized by Weitzel et al implies a chemical derivative, thus a complex fungicide is a derivative of a fungicide, i.e. cyclodextrin N-octylisothiazolinone complex is a derivative of N-octylisothiazolinone. Further it is noted that such N-octylisothiazolinone derivatives are encompassed by N-octylisothiazolinone, even as in the present case the claims recite that the biocide "consists of", i.e. the biocides disclosed by the

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reference is not a mixture of biocides, that is the biocides of Weitzel et al consists of the biocide itself.

15. Applicants submitted two (2) 37 C.F.R. 1.132 Declarations (filed on 9/9/2009 and 10/7/2010) as evidence of their position that the cyclodextrin complexed disclosed in Weitzel are not biocidal actives. However, it is noted that the statements in the Declaration regarding biocidal actives are merely conclusionary with evidence that the compounds in Weitzel are not biocidal actives. Further, it is noted that the present application is examined by that which is set forth in the claims and to this end, it is noted that there is nothing in the claims that excludes the presently claimed biocides from encompassing derivatives of biocide, i.e. the cyclodextrin derivatives taught by Weitzel.

16. Applicants argue that Weitzel et al does not disclose a biocide containing polymer powder compositions and further does not disclose mixing of any biocidal additives whether the active alone as a cyclodextrin complex of the active with the redispersible polymer powder to produce a water redispersible polymer power composition. However, attention is drawn to Page 4 Paragraph [0038] of Weitzel et al which discloses that the polymer (a) is mixed in the form of a powder with the other formulation ingredients (b) to (e). Paragraphs [0009], [0018], and [0028]-[0030] disclose: (a) a redispersible polymer powder, (b) a fungicide, (c) a pigment and (d) a filler, i.e. dolomite, calcite, chalk which are clearly minerals.

Furthermore, attention is drawn to claim 43 which recites the following: a process for increasing the resistance of a cured mineral building product to microbial growth, comprising

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adding to a curable mineral building product compositions, a water dispersible powder composition containing at least one spray dried water redispersible polymer powder admixed with at least one solid biologically active additive...” . The redispersible polymer powder disclosed by the reference is the presently claimed “redispersible polymer composition”, and clearly the disclosed mixing of ingredients (b) through (e), not only is the powder admixed with a biocidal compound (ingredient b) but clearly the fillers, i.e. dolomite, calcite, chalk, render the composition a curable mineral building product composition as presently claimed.

17. Applicants argue that a cyclodextrin complex of a active is not an active. However, it is noted as discussed above, a cyclodextrin complex of a biocidal compound is a derivative of the biocide. Further, it is noted that it would appear that Applicants are arguing that the biocidal derivative disclosed by Weitzel et al are not active, i.e. do not function as biocidal compounds, which appears to be contrary to the explicit disclosure in the reference that the biocidal complexes are biocidal.

18. Applicants argue that the polymers disclosed by Botts are not redispersible given that the reference discloses that the polymer is not in solid form but in dissolved form. However, it is noted that Botts discloses the benefits of spray drying compositions comprising active compounds, i.e. sustained and controlled release of the active compounds. Thus, Applicants are reminded that according to MPEP 2141.01 (a), a reference may be relied on as a basis for rejection of an applicants’ invention if it is “reasonably pertinent to the particular problem with which the inventor is concerned.” A reasonably pertinent reference is further described as one

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which “even though it maybe in a different field of endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem.” Botts is, therefore, a reasonably pertinent reference, because it teaches spray drying as a method for entrapping active ingredients in a polymer matrix in order to obtain sustained release, which is a function especially pertinent to the invention at hand.

Furthermore, it is noted that while Botts does not disclose all the features of the present claimed invention, the reference is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, In re Nievelt, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), In re Keller 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely benefits of spray drying processes as a method to entrap biocidal compounds for sustained and controlled release of these compounds, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

19. Applicants argue that Botts does not employ an protective colloid necessary to form a redispersible polymer powder. However, it is firstly noted that Botts is not utilized to teach a redispersible polymer powder, the redispersible polymer powder is taught by Wetzel et al. Secondly, it is noted that while Botts does not disclose the use of a protective colloids, it is significant to note that the (a) use of a protective colloid is optional in claims 49 and 47 and (b) claims,43, although discloses a process, the use of a protective colloid in the process is

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conspicuous by its absence in the present claims. That is, features upon which applicant relies (i.e. use of protective colloid in the presently claimed process) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

20. With respect to Applicants' arguments that Botts spray dries a solution of solid polymer not a dispersion because the biocide is also dissolved in the organic solvents and therefore Botts cannot utilize a water redispersible polymer, it is noted that (a) it would appear that by Applicants' own admission, Botts does not require the polymer to be dissolved, i.e. solid polymer and therefore does not preclude the use of a water redispersible polymer. Secondly it is noted that Botts discloses in Col. 5 (Lines 10-20) that "[a] further embodiment of the present invention provides a method of producing a particle wherein the particle comprises a triazole fungicide in a polymer matrix, the method comprising the steps of providing a hydrophobic solution comprising a triazole fungicide, a polymer, and a solvent; mixing the hydrophobic solution and an aqueous medium to produce a dispersion of droplets of the hydrophobic solution in the aqueous medium; and evaporating the solvent from the dispersion to produce a particle comprising a triazole fungicide in a polymer matrix". Further attention is drawn to Col. 8 Lines 16-20 of Botts which defines the terms "matrix" as "[m]atrix is defined as a surrounding material in which another material is entrapped, embedded, dissolved, dispersed or otherwise distributed. Particles of the present invention comprise a matrix that includes one or more polymers in which one or more active ingredients are entrapped, embedded, dissolved, dispersed, or otherwise

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distribute”. Thus, from both these disclosures in Botts, it is clear that the polymer need not necessarily be dissolved to form the matrix, rather the matrix merely needs to entrap or other distribute the fungicidal material.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,090,868.

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER C. KOLLIAS whose telephone number is (571)-270-3869. The examiner can normally be reached on Monday-Friday, 8:00 AM -5:00 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571)-272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. C. K./
Examiner, Art Unit 1725

/Basia Ridley/
Supervisory Patent Examiner, Art Unit 1725